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Requester's Full Name: JANE ZARA Examiner #: 77512 Date: 3-8-05
 Art Unit: 1635 Phone Number: 202-0765 Serial Number: 09/366281
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Title of invention: COMPOSITIONS FOR SORTING POLYNUC'S

Inventors (please provide full names): BRENNER, SYDNEY

Earliest Priority Filing Date: 2-19-94

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*Please perform a litigation
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Zara 5,654,413

109C25

Print Request: Current Document: 1

Time of Request: March 14, 2005 08:14 AM EST

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Job Number: 1842:35876223

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Research Information:

Utility, Design and Plant Patents
patno=5654413

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1 of 1 DOCUMENT

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

5654413

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August 5, 1997

Compositions for sorting polynucleotides

APPL-NO: 484712 (08)

FILED-DATE: June 7, 1995

GRANTED-DATE: August 5, 1997

ASSIGNEE-AT-ISSUE: Spectragen, Inc., Hayward, California, United States (US), 02

ASSIGNEE-AFTER-ISSUE: January 18, 1996 - ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS)., SPECTRAGEN, INC. 3832 BAY CENTER PLACE HAYWARD CALIFORNIA 94545, Reel and Frame Number: 07777/0020

January 18, 1996 - ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS)., LYNX THERAPEUTICS, INC. 3832 BAY CENTER PLACE HAYWARD CALIFORNIA 94545, Reel and Frame Number: 07776/0985

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484712 (08) 5654413 August 5, 1997

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5654413

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CORE TERMS: tag, sub, polynucleotide, oligonucleotide, nucleotide, microparticle, subunit, probe, complement, target ...

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Terms: **patno=5654413** ([Edit Search](#))

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6,456,683 or 6456683	0	Patent Cases from Federal Courts and		02/17/2005

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6555311 or 6,555,311	0	Patent Cases from Federal Courts and Administrative Materials	02/15/2005 08:05:38
patno=6555311	1	Utility, Design and Plant Patents	02/15/2005 08:02:49

Zara 5,654,413 14/03/2005

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Search statement 2

Query/Command : PRT SS 1 MAX 1 LEGALALL

1 / 1 PLUSPAT - @QUESTEL-ORBIT

Patent Number :

US5654413 A 19970805 [US5654413]

Title :

(A) Compositions for sorting polynucleotides

Patent Assignee :

(A) SPECTRAGEN INC (US)

Patent Assignee :

Spectragen, Inc., Hayward CA [US]

Inventor(s) :

(A) BRENNER SYDNEY (GB)

Application Nbr :

US48471295 19950607 [1995US-0484712]

Filing Details :

Cont. of US358810 19941219 [1994US-0358810]

C.I.P. of US322348 19941013 [1994US-0322348] (Abandoned)

Priority Details :

US48471295 19950607 [1995US-0484712]

US35881094 19941219 [1994US-0358810]

US32234894 19941013 [1994US-0322348]

Intl Patent Class :

(A) C07H-021/00 C12N-015/09 C12Q-001/68

EPO ECLA Class :

C12Q-001/68A6 C12Q-525:191 C12Q-565:519 C12Q-521:501

C12Q-001/68B6 C12Q-521:501 C12Q-525:191 C12Q-565:501

C12Q-001/68D2E1 C12Q-565:518 C12Q-565:501

C12N-015/10

C12Q-001/68E

C12Q-001/68E4

EPO ICO Class :

M12Q-220/731A

US Patent Class :

ORIGINAL (O) : 536022100; CROSS-REFERENCE (X) : 435006000 435320100

536024200

Document Type :

Basic

Citations :

US5302509; US5482836; WO9317126

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Publication Stage :

(A) United States patent

Abstract :

The invention provides a method of tracking, identifying, and/or sorting classes or subpopulations of molecules by the use of oligonucleotide tags. Oligonucleotide tags of the invention each consist of a plurality of subunits 3 to 6 nucleotides in length selected from a minimally cross-hybridizing set. A subunit of a minimally cross-hybridizing set forms a duplex or triplex having two or more mismatches with the complement of any other subunit of the same set. The number of oligonucleotide tags available in a particular embodiment depends on the number of subunits per tag and on the length of the subunit. An important aspect of the invention is the use of the oligonucleotide tags for sorting polynucleotides by specifically hybridizing tags attached to the polynucleotides to their complements on solid phase supports. This embodiment provides a readily automated system for manipulating and sorting polynucleotides, particularly useful in large-scale parallel operations, such as large-scale DNA sequencing, mRNA fingerprinting, and the like, wherein many target polynucleotides or many segments of a single target polynucleotide are sequenced simultaneously.

1 / 1 LGST - ©EPO

Patent Number :

US5654413 A 19970805 [US5654413]

Application Number :

US48471295 19950607 [1995US-0484712]

Action Taken :

19960118 US/AS02-A

ASSIGNMENT OF ASSIGNOR'S INTEREST

OWNER: SPECTRAGEN, INC. 3832 BAY CENTER PLACE HAYWARD, CA; EFFECTIVE

DATE: 19960109

19960118 US/AS02-A

ASSIGNMENT OF ASSIGNOR'S INTEREST
OWNER: LYNX THERAPEUTICS, INC.; EFFECTIVE DATE: 19960109

19990921 US/RF-A
REISSUE APPLICATION FILED
EFFECTIVE DATE: 19990802
Update Code :
2003-22


1 / 1 CRXX - ©CLAIMS/RRX
Patent Number :
5,654,413 A 19970805 [US5654413]
Patent Assignee :
Spectragen Inc
Actions :
19990802 REISSUE REQUESTED
Issue Date of O.G.: 19990921
Reissue Request Number: 09/366081
Examination Group responsible for Reissue process: 1646

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